

WA 2917

no date

Permit No: 7597
Issuance Date: DRAFT
Expiration Date: DRAFT

WASTE DISCHARGE PERMIT

Municipality of Metropolitan Seattle METRO
Seattle, Washington 98104

In Accordance with the Provisions
of Chapter 90.48 RCW as Amended,
Public Law 92-500 and Metro
Resolution 3374, a Waste
Discharge Permit is
Issued to:

PACIFIC NORTHERN OIL COMPANY

Operation Location: Pier 91, Seattle, Washington

Mailing Address: 100 West Harrison Plaza North Tower,
Suite 200,
Seattle, WA 98119

Permission is hereby granted to discharge industrial wastewater from the above identified operation into the Metro sewer system in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit.

This permit is based on information provided in the permit application which together with the following conditions and requirements is considered part of the permit. All discharges authorized herein shall be consistent with the terms and conditions of this permit. This permit is not transferable without authorization from Metro.

By _____
Elsie J. Hulsizer
Industrial Waste Supervisor
Comprehensive Planning Division

USEPA RCRA



3012956

FILE COPY

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S1. EMERGENCY CONTACTS

West Point Emergency Phone No: 24 HOURS
684-1800

Metro Industrial Waste Section Phone No: 7:30am - 4:00pm

Jacqueline Eden, Industrial Waste Investigator:
684-2378

Elsie Hulsizer, Industrial Waste Supervisor:
684-2364

Washington State Department of Ecology
Emergency Spill Phone No: 24 HOURS
867-7000

S2. COMPANY IDENTIFICATION

Discharge to: West Point Treatment Plant

Industry Type: Groundwater Reclamation Project

Limit Type: Metro Local Limits

SIC Code No.: 4953

Noncategorical

Metro Sample Site Station No. A4344

Description of Metro Sample Site:

Sample tap on the oil/water separator outlet.

Discharge from site No. A4344 is not categorical.

Hazardous Waste Generator No.: WAD981760762

S3. SAMPLE SITE ACCESS AND IDENTIFICATION

- A. Unobstructed access to sample sites shall be available to authorized Metro personnel during normal operating hours. The permittee shall be responsible for providing alternate sample sites in the event of access obstruction or upon evidence of monitoring equipment molestation.
- B. The permittee shall allow Metro to permanently label

the sample sites used to collect wastewater samples.

S4. NOTIFICATION REQUIREMENTS

A. Spills

The permittee shall notify Metro immediately in the event of a spill to the sanitary sewer.

B. Changes In Discharge Characteristics

The permittee shall inform Metro prior to :

1. A significant alteration (> 20% increase from permit application) in the volume or nature of their industrial discharge.
2. Discharge of waste streams not listed in the permit application.

Following the notification discharge may commence upon receipt of written permission from Metro.

C. Continuing Discharge After Permit Expiration Date

This permit does not authorize discharge after its expiration date. If the permittee wishes to continue discharge after the expiration date an application must be filed for reissuance of this permit at least 180 days prior to the expiration date.

S5. EFFLUENT LIMITATIONS

A. General Requirements

1. The permittee's discharge shall not interfere with the operation of the municipal sewer system, cause Metro to exceed its NPDES permit limits, or endanger local utility or Metro sewer workers.
2. Wastewater from regulated processes shall comply with the effluent limitations prior to dilution with other wastewaters unless a fixed alternative discharge limit is approved by Metro.

B. Violation Criteria

Criteria for determining violations are explained in Section S10. Resolution 3374 also lists criteria for mass violations and reporting violations. Exceeding

either restrictive limitation, concentration or quantity (mass) at any time is a violation.

C. Effluent Limitations for Site No. A4344
--Metro Limits--

Discharge from this site is not regulated by Federal Pretreatment Standards. (i.e. this is a noncategorical discharge)

<u>Parameter</u>	<u>Effluent Limitations Daily Max (mg/l)</u>	<u>Max lbs/day</u>
Arsenic(As)	1.0	0.12
Cadmium (Cd)	3.0	0.36
Chromium(Cr, T) (b)	6.0	0.72
Copper(Cu)	3.0	0.36
Lead(Pb)	3.0	0.36
Mercury(Hg)	0.1	0.01
Nickel(Ni)	6.0	0.72
Silver(Ag)	1.0	0.12
Zinc(Zn)	5.0	0.60
Cyanide(CN, T) (c)	2.0	0.24
Polar Fats Oils & Grease(FOG) (d)	100	NA
Nonpolar FOG (e)	100	NA
pH minimum (f)	5.5	NA
Temperature	150 F	NA
LEL	(g)	
1,1,1-trichlorethane	1.6	0.19
2-butanone (MEK)	330	39.58
Benzene	0.10	0.01
Chloroform	0.30	0.04
Ethyl benzene	1.40	0.17
Methylene chloride	1.70	0.20
Tetrochlorethene	0.35	0.04
Bis (2-ethylhexyl) phthalate	490.00	58.78
Napthalene	2.40	0.29
Toluene	1.5	0.18
Trichlorethene	0.53	0.06
Phenol	660.00	79.17
Remaining TTOs (h)	5.0	0.60
Soluble sulfide	0.5	0.02
Atmospheric sulfide	10	NA

Flow (gpd)
Total 14,400
Industrial: 14,400

Notes:
(a) NA = Not applicable

- (b) Cr, T = Total Chromium
- (c) CN, T = Total Cyanide
- (d) Polar Fog = FOG of animal vegetable origin
- (e) Nonpolar FOG = FOG of mineral petroleum origin
- (f) pH is in standard units
- (g) LEL = Lower Explosive Limit. At no time shall two successive readings on an explosive hazard meter at the point of discharge into the municipal sewer system (or at any point in the system) be more than five percent (5%) LEL. No single reading shall exceed ten percent (10%) of the lower explosive limit. Prohibited materials include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene.
- (h) Remaining TTOs are those listed in S 15 which do not have individual limits identified above.

S6. MONITORING RESPONSIBILITIES

A. Responsibility

It is the responsibility of the permittee to test and observe their effluent to insure that the effluent limitations of this permit are met.

B. Response When Violations are Detected

In the event self-monitoring data shows a violation the permittee shall:

1. take immediate action to stop the violation
2. notify Metro within 24 hrs of learning of the violation

3. submit a written report within fourteen (14) days of learning of the violation which explains the cause of the violation and corrective actions taken to respond to the violation and insure ongoing compliance.
4. resample and submit new data to Metro within 14 days of becoming aware of the violation.

C. Nonrequired Self-Monitoring

All sampling data collected by the permittee and analyzed using procedures approved by 40 CFR 136 or approved alternatives shall be submitted to Metro whether required as part of this permit or done voluntarily by the permittee.

D. Monitoring Requirements - Self-Monitoring Required

1. The permittee shall monitor its discharge to the municipal sewer as specified below.

Site: A4344

Parameters: Non-polar fats, oil and grease (Non-polar FOG);

Sample Type: Three grab samples taken not less than five minutes apart

frequency: Monthly

Site: A4344

Parameters: copper; lead; zinc; benzene; toluene; ethylbenzene; pH

Sample Type: Grab

Frequency: Monthly

Site: A4344

Parameter: Daily flow

Frequency: Monthly

See S7, for additional self-monitoring requirements

2. Self Monitoring Reports shall be submitted no later than the 15th day of the time period following the sample collection. (i.e. The 15th day of the following month for monthly samples. The permittee shall use the Metro self-monitoring form to submit results unless an alternate form is approved by Metro.

S7. SPECIAL CONDITIONS

A. Monitoring Requirements

In addition to self-monitoring requirements identified in S6, once every month for the first three months of operation and once every six months thereafter, the permittee shall collect and analyze samples for parameters listed in S5, item C. TTOs shall be analyzed in accordance with EPA Method 624. In addition, the samples shall be analyzed for total xylenes. Data shall be submitted by the 15th of the month following data collection, on a self-monitoring report form. The permittee shall not be required to submit data to satisfy the conditions of S6, item D1 during months when data is being submitted to meet the requirements of S7, item A.

B. Operating Procedures

The permittee is expected to pay close attention to the following common sense criteria whenever discharge to the sanitary sewer is occurring:

1. There shall be no pronounced odor of solvent or gasoline.
2. There shall be no pronounced oil sheen or unusual color.
3. There shall be no pronounced hydrogen sulfide (rotten egg) odor.
4. There shall be no visibly pronounced turbidity, the discharge must remain translucent.

If any of the common sense criteria are exceeded, the permittee must stop discharging and notify the emergency contacts listed in S1.

S8. SUMMARY OF REQUIRED REPORTS

The permittee shall submit reports to Metro according to the schedule listed below.

Report Name:

SELF MONITORING REPORT

Frequency:

As specified in Sections S6 and S7.

Due Date:

Report to be filed no later than the 15th day of the time period following the sample collection. (i.e., the 15th of each month for monthly sampling).

Content/Comments: The monthly self-monitoring reports shall contain the data specified in S6 and S7 or, if appropriate, a notification that no discharge has occurred.

Report Name: SPILL OR UPSET CONDITIONS REPORT
Frequency: As needed.
Due Date: Within fourteen (14) days after the spill notification.
Content/Comments: Reason, characteristics of spill and corrective action taken.

Report Name: REPORTS OF DISCHARGE VIOLATIONS
Frequency: As needed.
Due Date: Fourteen (14) days after violation known to permittee.
Content/Comments: Reason for violation and corrective actions taken.

Report Name: REPORT FOR INSTALLATION UPGRADE OF PRETREATMENT SYSTEM - per WAC 173-240
Frequency: As needed prior to installation or upgrade.
Due Date: N/A
Content/Comments: Approval required before installation/upgrade occurs.

Report Name: COPIES OF DANGEROUS WASTE REPORTS FILED WITH DEPARTMENT OF ECOLOGY
Frequency: As requested by Metro.
Due Date: N/A
Content/Comments: As required by the Washington Department of Ecology.

Report Name: REPORT ON NONREQUIRED SELF MONITORING
Frequency: As nonrequired samples are collected.
Due Date: Same as self monitoring report for dates of sample collection, i.e. the 15th day of the month following the sample collection.
Content/Comments: See S6, item C

S.9 MONITORING AND RECORD KEEPING

The permittee shall monitor their discharge to the municipal sewer. It shall be the responsibility of the permittee to take whatever steps are necessary to insure discharge requirements are met. All records required by the permit shall be available for review at reasonable times by authorized representatives of the Municipality of Metropolitan Seattle.

A. Recording of Results

For each measurement or sample taken to comply with this permit, the permittee shall record the following information:

1. the date, exact place and time of sampling;
2. the dates the analyses were performed;
3. the person who performed the analyses;
4. the analytical techniques or methods used;
5. the results of all analyses.

B. Record Retention

Records of all such testing shall be retained for a period of three (3) years unless litigation or the direction of the Executive Director requires an extension of that time.

C. Representative Sampling

Samples and measurements taken to meet the requirements of this condition shall be representative of the volume and nature of the monitored discharge.

D. Test Procedures

All analyses shall be performed in accordance with procedures established by the Administrator of EPA pursuant to Section 304(g) of the Clean Water Act and contained in 40 CFR Part 136 and amendments thereto or with any other test procedures approved by the Administrator, and/or Metro. In all cases the detection limit shall be well below the discharge limit. Where 40 CFR Part 136 does not include a sampling or analytical technique for the pollutant in question, sampling and analysis shall be performed in accordance with the procedures set forth in the EPA publication entitled "Sampling and Analysis Procedures for Screening of Industrial

Effluents or Priority Pollutants, April, 1977" or "Standard Methods", 1985 Edition and amendments thereto, or with any other sampling and analytical procedures approved by the Administrator. Analysis of FOG shall be in accordance with method numbers 503A and 503F in "Standard Methods", 1985 Edition.

E. Falsifying Information

The act of knowingly falsifying, tampering with, or knowingly rendering inaccurate any monitoring device, report or method required pursuant to the federal pretreatment standards, Metro Resolution 3374, or special condition of this permit shall constitute a violation of this permit, and shall be subject to the legal remedies available under Section 6-06 and Section 13 of Metro Resolution 3374.

F. Toxicity Testing

In the event Metro is required by the Department of Ecology to determine the source of a pattern of acute toxicity pursuant to its Treatment Plant NPDES permit, the permittee may be required to test its effluent for toxicity according to procedures to be determined by Metro.

S10. Criteria Constituting a Violation

- A. A violation of those limits established under Section 4 of Metro Resolution 3374, federal, state or Metro pretreatment standards, or specific requirements of an industrial waste discharge permit shall occur, regardless of intent or accident, when:
1. The criteria listed in Section 10 of Metro Resolution 3374 are exceeded.
 2. The numerical or qualitative value of any federal pretreatment standard is exceeded. Those parameters designed by (*) in S5 of this permit are federal pretreatment standards.
 3. The temperature limitation of 150 degrees Fahrenheit is exceeded for any single sample or the discharge causes the temperature at the treatment works to exceed 104 degrees Fahrenheit.
- B. A review of any violation will include consideration of testing accuracy prior to enforcement action.
- C. The more restrictive limitation (concentration or mass)

shall prevail for determining violations.

S11. OPERATIONS AND MAINTENANCE

The permittee shall use waste preventative practices to reduce or eliminate contaminant loading to the Municipal Sewer System. These practices shall include proper chemical storage, spill prevention and notification, and maintenance and operation of any required pretreatment equipment.

A. Chemical Storage

Chemical solutions, solid chemicals, waste materials, oils and solvents shall be stored in a manner that will prevent the entry of these materials into the municipal sewer system.

1. Noncompatible chemicals shall be segregated and securely stored in separate containment areas that prevent mixing of incompatible or reactive materials.
2. The permittee shall install shut-off devices to all drains in any hazardous waste storage areas.
3. Chemicals shall be dispensed only in roofed and bermed areas that eliminate potential spills to the municipal sewer system.
4. All empty barrels which have not been steam-cleaned shall be adequately stoppered and stored in an upright position.
5. Process tanks shall be located in a bermed, roofed, secured area capable of containing 105 percent of the volume of the largest tank. The permittee shall insure that process solutions are used and stored in such a manner as to minimize spills of concentrated solutions to the sanitary sewer.

B. Spill Prevention/Notification

The permittee shall notify Metro immediately in the event of a spill to the sanitary sewer.

1. In the event of a concentrated solution spill such as a tank failure, the permittee shall not discharge any spilled solution to the municipal sewer system unless laboratory test results indicate that the substance meets the conditions of this permit. The permittee shall receive approval from the Metro Industrial Waste Section prior to any discharge of spilled solutions.
2. Concentrated waste or spilled chemicals which do not meet, or are not treated to meet, the discharge conditions of this permit shall be transported offsite for disposal at a facility approved by the Department of Ecology or appropriate County Health Department.
3. The permittee shall maintain and inspect all process solution tanks on a regular basis. Any leaks shall be repaired promptly.
4. The permittee shall use spill prevention practices to preclude the discharge of liquids, solids, or gases, which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with other substances to cause fire or explosions.
5. All process tanks and chemical storage containers shall be accurately labeled. Emergency phone numbers of Metro, Fire Departments, your company's 24-hour corporate contact and WDOE shall be posted at all sites that Metro requires.
7. The permittee shall insure that concentrated wastes from process tank filters and other equipment is prevented from entering the sanitary sewer unless it is treated to meet the discharge conditions of this permit.

C. Pretreatment Equipment Maintenance and Operations

All pretreatment systems used to bring the permittee's discharge into compliance with Metro's discharge limitations shall be maintained continuously in satisfactory and effective operations by the permittee at his expense, and shall be subject to periodic inspections by authorized Metro Personnel. These systems shall be attended at all times during discharge to the municipal sewer system. In the event that such equipment fails, the permittee must notify Metro immediately and take spill prevention precautions.

1. Plans for all pretreatment facilities or equipment, whether initial installation or modification of existing equipment, shall be reviewed and approved by Metro and the Washington Department of Ecology prior to construction or initiation.
2. Metro shall be contacted before the beginning of any limited experimental modifications or new equipment testing that could reasonably be expected to affect effluent quality or quantity. This experimental work shall proceed only after securing written approval from Metro and following the permittee's adherence to any applicable special conditions.
3. The effluent limitations specified in this permit are to be met by treatment of the wastes for pollutant removal. The use of municipal water, groundwater, seawater, storm water or other materials, including waste products, for the purpose of diluting a waste to achieve those limitations is prohibited.

D. Sewer Meter Requirements

1. The permittee shall obtain or maintain access to a sewer meter which can provide accurate information regarding groundwater discharge to the sewer, or use other methods approved by Metro for calculating volume of discharge to the sewer.

E. pH

1. The permittee shall cease discharge whenever a Metro representative requires, or an effluent check shows a pH violation (as defined in Metro Resolution 3374, Section 10 - Violations). No discharge shall be resumed until the effluent is neutralized to an acceptable level.
2. The permittee shall maintain a log of all pH checks or a continuous record of effluent pH's as required in S6 - Monitoring Responsibilities.

F. Solid Waste

1. The permittee shall handle and dispose of all solid waste material (as defined in WAC 173-304-100) in such a manner as to prevent their entry into the municipal sewer system.
2. All covers, screening devices, sumps, hoppers, conveyors and other facilities provided for the recovery and handling of waste solids are to be maintained in an efficient operating condition.

G. Stormwater/Cooling Water

1. Storm water and cooling water shall be excluded, except where specifically authorized by this permit, from the municipal sewer system.

S12. GENERAL CONDITIONS

- A. All discharges and activities authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant more frequently than, or at a level in excess of, that identified and authorized by this permit shall constitute violation of the terms and conditions of this permit. Whenever the permittee refuses to take corrective action or continues the violating condition, the imposition of civil penalties and/or termination of this permit may result. Termination of this permit may require disposal of the industrial waste in some manner other than into the public sewer, private sewer, or side sewer tributary to the municipal sewer system at the expense of the person holding the permit.
- B. Any facility changes which will result in a significant change in character or volume of pollutants discharged to the municipal sewer system must be reported to the permit authority. No change shall be made until plans have been approved and a new or modified permit has been issued. In no case are any new connections, increased flows, or significant changes in influent quality permitted that will cause violation of the effluent limitations specified herein.
- C. The diversion or bypass of any discharge from any pretreatment facility utilized by the permittee to maintain compliance with the terms of this permit is prohibited except where unavoidable to prevent loss of life or severe property damage. The procedure outlined in paragraph D shall be followed in case of such a diversion or bypass.
- D. In the event the permittee is unable to comply with any of the conditions of this permit because of a breakdown of equipment or facilities, an accident caused by human error, negligence, or any other cause, such as an act of nature, the permittee shall:
 - 1. take immediate action to stop, contain and clean up the unauthorized discharges and correct the problem.
 - 2. immediately notify the Municipality of Metropolitan Seattle so steps can be taken to prevent damage to the sewerage system.

3. submit a written report describing the breakdown, the actual quantity and quality of resulting waste discharged, corrective action taken, and the steps taken to prevent a recurrence.

Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit or the resulting liability for failure to comply.

- E. The permittee shall adequately maintain and efficiently operate all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.
- F. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
 1. A violation by the permittee of any terms or conditions of this permit;
 2. Securing of the permit by the permittee through misrepresentation or failure to fully disclose all relevant facts; or
 3. A change in any condition that requires a temporary or permanent reduction or elimination of permanent discharge. The purpose of such reduction or elimination shall be to allow Metro to: a) insure compliance with the requirements of any Federal or State law or administrative regulation relating to water pollution; b) ensure Metro performs its statutory function under RCW 35.58.200; and c) meet any emergency.
- G. The permittee shall, at all reasonable times, allow authorized representatives of the Municipality of Metropolitan Seattle:
 1. to enter that portion of the premises where an effluent source or disposal system is located or in which any records are required to be kept under the terms and conditions of this permit;
 2. to inspect any monitoring equipment or monitoring methods required by this permit; or
 3. to sample any discharge of pollutants.
- H. If a toxic standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Federal Clean Water Act for a toxic

pollutant which is present in the discharge authorized herein, and such standard or prohibition is more stringent than any limitation upon such pollutant in the permit, the permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee shall be so notified. Section 307(a) requires that the Administrator of the Environmental Protection Agency shall promulgate effluent standards (or prohibition) for toxic pollutants which he has listed as such.

- I. Nothing in this permit shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.
- J. This permit does not constitute authority for discharge into waters of the state. Any such discharge is subject to enforcement action by the Department of Ecology.
- K. All requirements and ordinances of Metro pertaining to the discharge of wastes into the municipal sewer system are hereby made a condition of this permit.
- L. All requirements and ordinances of the Environmental Protection Agency and the Department of Ecology pertaining to hazardous and toxic wastes, disposal facilities, and discharge of wastes into the municipal sewer system, are hereby made a condition of this permit.
- M. Should the permittee intend to initiate any additional chemical or waste processing activity not listed in their permit application, to include other unspecified activities, or implement any change in processing or general operations that would alter the characteristics of facility effluent, it will be necessary for the permittee to submit plans describing these additions or changes for review and approval prior to any such initiation, implementation or change.

S13. WASHINGTON DEPARTMENT OF ECOLOGY (ECOLOGY) CONDITIONS

Upon issuance of this permit, the permittee assumes the responsibility to abide by the following environmental requirements, and any other appropriate regulations stipulated by the Department of Ecology. **The Department of Ecology retains authority to enforce these permit conditions (RCW 70.105 and RCW 90.48).**

- A. Conditions To Protect Ground and Surface Waters

1. Contaminated waters or wastes shall not be discharged to state waters.
2. Boiler blow down and water shall not be discharged to state waters.
3. Solid chemicals, chemical solutions, waste materials, oils and solvents shall be stored in a manner which will prevent the entry of these materials into State ground or surface waters, and in a manner that will prevent spillage by overfilling, tipping or rupture.
4. The permittee shall handle and dispose of all solid waste material in such a manner as to not cause any adverse effect on ground or surface water quality.
5. Filtered solids or sludge shall be stored in such a manner that drainage from this material is prevented from either draining across public rights-of-way or entering the local storm drain system or the ground water.
6. No emulsifiers or dispersants are to be used on waters of the state without approval from the Department of Ecology.

Questions regarding the implementation of conditions outlined in Section S13 should be directed to the regulatory authority, the Washington State Department of Ecology, at 867-7000 (Northwest Regional Office, Redmond, Washington).

S15. TTO Definition/Reporting Requirements (413/433)

A. TTO Definition (From 40 CFR, 433.11 and 413.02)

The term "TTO" shall mean total toxic organics, which is the summation of all quantifiable values greater than the Practical Quantitation Limits (PQL) listed in EPA SW-846 Methods 8270 and 8240 or 0.01 milligrams per liter, which ever is greater, for the following toxic organics:

Acenaphthene
Acrolein
Acrylonitrile
Benzene
Benzidine
Carbon tetrachloride (tetrachloromethane)
Chlorobenzene
1,2,4-trichlorobenzene
Hexachlorobenzene
1,2-dichloroethane
1,1,1-trichloroethane
Hexachloroethane
1,1-dichloroethane
1,1,2-trichloroethane
1,1,2,2-tetrachloroethane
Chloroethane
Bis(2-chloroethyl) ether
2-chloroethyl vinyl ether(mixed)
2-chloronaphthalene
2,4,6-trichlorophenol
Parachlorometa cresol
Chloroform (trichloromethane)
2-chlorophenol
1,2-dichlorobenzene
1,3-dichlorobenzene
1,4-dichlorobenzene
3,3-dichlorobenzidine
1,1-dichloroethylene
1,2-trans-dichloroethylene
2,4-dichlorophenol
1,2-dichloropropane
2,4-dimethylphenol
2,4-dinitrotoluene
2,6-dinitrotoluene
1,2-diphenylhydrazine
Ethylbenzene
Fluoranthene
4-chlorophenyl phenyl ether
4-bromophenyl phenyl ether
Bis (2-chloroisopropyl) ether
Bis (2-chloroethoxy) methane
Bromoform (tribromomethane)
Dichlorobromomethane
Chlorodibromomethane
Hexachlorobutadiene
Hexachlorocyclopentadiene
Isophorone
Naphthalene
Nitrobenzene
2-nitrophenol
4-nitrophenol
2,4-dinitrophenol
4,6-dinitro-o-cresol
N-nitrosodimethylamine

N-nitrosodiphenylamine
 N-nitrosodi-n-propylamine
 Pentachlorophenol
 Phenol
 Bis (2-ethylhexyl) phthalate
 Butyl benzyl phthalate
 Di-n-butyl phthalate
 Di-n-octyl phthalate
 Diethyl phthalate
 Dimethyl phthalate
 1,2-benzanthracene (benzo(a)anthracene)
 Benzo(a)pyrene (3,4-benzopyrene)
 3,4-Benzofluoranthene (benzo(b)fluoranthene)
 11,12-benzofluoranthene (benzo(k)fluoranthene)
 Chrysene
 Acenaphthylene
 Anthracene
 1,12-benzoperylene (benzo(ghi)perylene)
 Fluorene
 Phenanthrene
 1,2,5,6-dibenzanthracene (dibenzo(a,h)anthracene)
 Indeno (1,2,3-cd) pyrene) (2,3-o-phenylene
 pyrene) Pyrene
 Tetrachloroethylene
 Toluene
 Trichloroethylene
 Vinyl Chloride (chloroethylene)
 Aldrin
 Dieldrin
 Chlordane (technical mixture and metabolites)
 4,4-DDT
 4,4-DDE (p,p-DDX)
 4,4-DDD (p,p-TDE)
 Alpha-endosulfan
 Beta-endosulfan
 Endosulfan sulfate
 Endrin
 Endrin aldehyde
 Heptachlor
 Heptachlor epoxide
 (BHC-hexachlorocyclohexane)
 Alpha-BHC
 Beta-BHC
 Gamma-BHC
 Delta-BHC
 (PCB-polychlorinated biphenyls)
 PCB-1242 (Arochlor 1242)
 PCB-1254 (Arochlor 1254)
 PCB-1221 (Arochlor 1221)
 PCB-1232 (Arochlor 1232)
 PCB-1248 (Arochlor 1248)
 PCB-1260 (Arochlor 1260)
 PCB-1016 (Arochlor 1016)

Toxaphene
2,3,7,8-Tetrachlorodibenzo-p-dioxin
(TCDD)